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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/497,284	02/02/2000	Philemon L. Bruner	BRUE:035	7307
7590	12/05/2003		EXAMINER	
Arnold White & Durkee 750 Bering Drive Houston, TX 77210-2198			SHAPIRO, JEFFERY A	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/497,284	<b>Applicant(s)</b> BRUNER ET AL.
	<b>Examiner</b> Jeffrey A. Shapiro	<b>Art Unit</b> 3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 08 September 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-23 and 27-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-23 and 27-34 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some \* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a)  The translation of the foreign language provisional application has been received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)  Notice of Informal Patent Application (PTO-152)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/8/03 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-23, 27-28 and 32-34, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al (US 5,769,200). Meyer et al discloses the following.

As described in Claims 1, 13, 27, 28 and 32-<sup>3</sup>4;

1. a coins separator (10) and rejector body (18, 20, 22, 24 and 28) having *two or more segments hinged together in pivotal connection, said hinged segments defining* one or more downwardly inclined coin races formed *between said hinged segments* (see figure 1); (Note that the term "hinged together" is being construed as meaning they are connected together and that each segment is hinged, meaning that it pivots. Pivoting is construed to mean that a segment moves from one plane at a particular

angle to the horizontal, to a different plane, located at another angle to the horizontal. Considering this, it appears that the segments (18, 20, 22, 24 and 28) of Meyer et al appear to be "connected" together by the wall (106, for example, of figure 4) the flaps/segment pivots are journaled in. Each flap moves or pivots from one plane to the next. Therefore, it appears that Meyers et al meets the limitations of having several segments hinged together in pivotal connection. Note also that even if "hinged together in pivotal connection" is construed as "**two segments pivoting on the same shaft**", then it can be argued that the hinged segments of Applicant and those of Meyers et al are functional equivalents of each other, performing substantially the same function in substantially the same way with substantially the same structure. In addition, it appears that there is no particular reason in Applicants' specification for using the single shaft versus the scheme of Meyer et al.)

- 1b. *said pivotally connected segments adapted to pivot around said hinge from a closed position to an open position;* (Note that this apparatus appears to be adapted to perform this function.)
2. said rejector body having an upstream portion and a downstream portion;
3. said coin races further comprising a first wall and a second wall;
4. at least a portion of one of said walls in pivotal connection with at least one of said hinged segments of said coin separator and rejector

body (note that it appears that the walls of Meyer et al are in contact with the hinged or swinging segments of Meyer et al (18, 20, 22, 24 and 28);

5. one or more sensors (A and B) located in said upstream portion of said *coin separator and rejector body* (note that sensor (A) is located upstream with respect to flaps (24 and 28);

6. an actuator (27) in mechanical connection with said pivotal portion of said race wall;

7. a processor (79) in electrical communication with said sensors and with said actuator;

As described in Claim 2;

8. a second sensor (A or B) located in said downstream portion of said rejector body;

As described in Claims 4-6 and 15-17;

9. said actuator is a solenoid (27);

10. said solenoid is a latching solenoid;

11. said solenoid is a wound cap solenoid;

(Note that whether or not a latching solenoid, wound cap solenoid or basic solenoid, the apparatus of Meyer et al still has substantially the same structure and functions in substantially the same way as Applicant's apparatus.)

4. Claims 3, 7-11, 14, 18-23 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Mercurio. Meyer et al does not expressly disclose the following.

As described in Claims 12 and 23, 29 and 30;

12. a light coin spring detector positioned in the downstream portion of said rejector body;

Mercurio discloses the following.

As described in Claims, 12, 23, 29 and 30;

12. a light coin spring detector (70) positioned in the downstream portion of said rejector body (see col. 3, lines 48-68 and col. 4, lines 1-4 of Mercurio);

Both Meyer et al and Mercurio are analogous art because they both concern coin handling.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have added a light coin spring detector in the downstream passageway of the rejector body.

The suggestion/motivation would have been to provide a further layer of security to insure correctly weighted coins are allowed to pass through to the coin box. See Mercurio, abstract, last 7 lines, in particular.

Claims 3 and 14 read as follows;

13. said actuator is an electric motor;

Regarding Claims 3 and 14, note that an electric motor used as an actuator of the rejector bodies is considered to be a functional equivalent of a solonoid. It would be expedient for one ordinarily skilled in the art to use electric motors or stepper motors to actuate the rejector bodies since they may provide finer control of the rejectors or may take up less space than solenoids.

Claims 7-11 and 18-22 read as follows;

14. at least one of said sensors is an induction coil;
15. at least one of said sensors is a hall effect sensor;
16. at least one of said sensors (A)is a photoelectric sensor;
17. at least one of said sensors is an LED sensor;
18. at least one of said sensors is an IR (infrared) sensor;

Regarding Claims 7-11 and 18-22, note that induction coils, hall effect sensors, photoelectric sensors, LED sensors and IR sensors are considered to be functional equivalents of each other. It would be expedient for one ordinarily skilled in the art to provide any one or a combination of these sensors in order to sense coins or other items that may be jamming a coin path.

Claim 31 reads as follows.

As described in Claim 31;

19. a magnet mounted adjacent said coin race in the upstream portion of said separator and rejector body (see Pearson, figure 7, which illustrates a magnet (331)—note that it would be expedient for one

ordinarily skilled in the art to provide a magnet to a coin race to effect the removal of ferrous slugs which are not legal tender);

Therefore, it would have been obvious to combine Meyer et al and Mercurio to obtain the invention as specified in Claims 3, 7-11, 14, 18-23 and 29-31.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-23 and 27-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-22 of U.S. Patent No. 5,988,349 in view of Meyer et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of said rejector body, the system controlled by a processor.

6. Claims 1-23 and 27-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-25 of U.S.

Patent No. 6,155,399 in view of Meyer et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of said rejector body, the system controlled by a processor.

7. Claims 1-23 and 27-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 5,647,470 in view of Meyer et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of said rejector body, the system controlled by a processor.

8. Claims 1-23 and 27-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 09/339,011 in view of Meyer et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of said rejector body, the system controlled by a processor.

This is a provisional obviousness-type double patenting rejection.

#### ***Response to Arguments***

9. Applicant's arguments filed 9/8/03 have been fully considered but they are not persuasive. Applicant explains in the response, dated 12-24-02, p.7, last line and p.8, lines 1-3 that "since the coin race is formed between the hinged-together section of the rejector body, pivoting open the rejector body also pivots at least a portion of one of the

race walls such that a coin within the race will drop out of the rejector body." If the wall of the race and the rejector body, which are physically connected to each other, and appear from figure 2, for example, to be formed of one piece, that this interpretation of "hinged –together" appears to allow the use of the a device such as that of Bruner '399. for example, as the portions (30, 32 and 48 are physically formed as one piece, and pivot on pivot (42), which is part of (44) and can be construed to be part of the housing. Not also that element (60) is also connected to element (30) by a spring (51), allowing both element (60) and (30) to pivot with respect to each other, while also remaining in contact. Therefore, element (60) and (30) appear to be in "hinged" relationship with each other. Other examples that might be used include Chen et al (see figures 7, noting elements 33, 35, 55 and 65) or Wei (see figure 1A, elements 24 and 26—note also elements 40, 44 and 46 as well as figures 2 and 4A-B).

Regarding Mercurio, note in col. 4, lines 4-8, that an underweight coin is caused to go in a horizontal direction, and that this appears to be a functional equivalent of Applicants' stopping of the coin in the raceway. Note that it would be expedient for one ordinarily skilled in the art to stop the coin, but that in any case, the coin eventually drops to a lower position, or is removed from the path where genuine coins are intended to pass. Therefore, at the very least, the underweight coin means of Mercurio is considered to be a functional equivalent of Applicants'.

Regarding the double patenting rejection against US 6,155,399, note that although no processor is directly claimed, it can be argued to be obvious or inherently necessary as one ordinarily skilled in the art would use a processor to process the

information received from the sensors (25 and 33) and to coordinate the magnet arm (shown in figure 1) and a validator, for example.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Glaser is cited as an example of a system having pivotally connected segments which pivot around said hinge from a closed position to an open position into the path of a coin, so as to unjam a jammed coin.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (703)308-3423. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

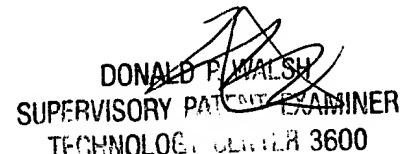
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (703)306-4173. The fax phone number for the organization where this application or proceeding is assigned is (703)306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.



Jeffrey A. Shapiro  
Examiner  
Art Unit 3653

November 24, 2003



DONALD P. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600